

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/33530

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) A61K 31/535, 31/40

US CL : 514/236.2, 411

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. 514/236.2, 411

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Please See Continuation Sheet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No
A	Database MEDLINE in STN (Columbus, OH, USA), AN 2001045397, KRUM H et al, 'Baseline predictors of tolerability to carvedilol in patients with chronic heart failure,' Heart, December 2000, vol. 84, no. 6, pages 615-9, abstract	1-41, 55-67
Y	Database CAPLUS in STN (Columbus, OH, USA) DN 131:252307, NAGARAJA S et al, 'Treatment with inverse agonists enhances baseline atrial contractility in transgenic mice with chronic beta2-adrenoceptor activation,' Br J Pharmacol, 1999, vol.127, no.5, pages 1099-1104, abstract.	1-41, 55-67
A	Database MEDLINE in STN (Columbus, OH, USA) AN 84081647, MARKOWITZ S et al, 'Timolol: a 4-year follow-up study,' Can J Ophthalmol, 18 October 1983, vol. 18, no. 6, pages 278-80, abstract	1-41, 55-67
A	Database MEDLINE (Columbus, OH, USA), AN 2002624573, SEIFERT R et al, 'Constitutive activity of G-protein-coupled receptors: cause of disease and common property of wild-type receptors,' Naunyn-Schmiedeberg's archives of pharmacol, November 2002, vol. 366, no. 5, pages 381-416, abstract.	1-67

☒ Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T"

later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X"

document of particular relevance, the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y"

document of particular relevance, the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"Z"

document member of the same patent family

Date of the actual completion of the international search

28 September 2005 (28.09.2005)

Date of mailing of the international search report

04 NOV 2005

Name and mailing address of the ISA/US

Mail Stop PCT, Attn ISA/US
Commissioner of Patents
P O Box 1450
Alexandria, Virginia 22313-1450

Facsimile No (703) 305-3230

Authorized officer

Rebecca Cook

Telephone No. 703-308-1235

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C. (Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	Database BIOTECHDS in STN (Columbus, OH, USA) AN 2003-03745, OAKLEY R et al, 'Modified B-protein coupled receptor useful for identifying an agonist, inverse agonist or antagonist of the receptor, comprises a carboxyl terminal having one or more clusters of phosphorylation, vector-mediated gene transfer and expression in host cell for recombinant protein production, drug screening and gene therapy,' US 2002106739, 05 November 2001, abstract.	42-54
A	Database CAPLUS in STN (Columbus, OH, USA) DN138:84549, MARTINEZ R et al, 'Protein and cDNA sequences of human olfactory G protein-coupled receptors, their diagnostic and therapeutic uses thereof,' WO 2003000735, 03 January 2003, abstract.	1-67

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Box I Observations where certain claims were found unsearchable (Continuation of Item 1 of first sheet)

This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claim Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claim Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claim Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of Item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:
Please See Continuation Sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

☐
☐

The additional search fees were accompanied by the applicant's protest.

No protest accompanied the payment of additional search fees.

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BOX π . OBSERVATIONS WHERE UNITY OF INVENTION IS LACKING

Group I, claim(s) 1-41, 55-67, drawn to a method of use, holders and compositions.

Group H, claim(s) 42-51, drawn to a first method of screening in which the basal level of activity of the compound that is screened is measured.

Group III, claim(s) 52-54, drawn to a second method of screening in which receptor population or receptor density of the compound that is screened is measured.

The inventions listed as Groups I-III do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: Group I is to a method of treating a disease while Groups II and III are drawn to methods of detecting activity of compounds. Furthermore, the screening method of Group II does not require the elements of the screening method of Group III.

Continuation of B. FIELDS SEARCHED Item 3:

REGISTRY, CAPLUS, MEDLINE, DRUGU, BIOSIS, IPA, TOXCENTER, EMBASE, JICST-EPLUS, PASCAL, BIOTECHNO, ESIIOBASE, CONFSCI, BIOTECHDS, DISSABS, TOXCENTER, WPIDS, SCISEARCH